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PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, E. P. ROBERTS AND SAMUEL SANDS—EDITED BY E. P. ROBERTS.

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BALTIMORE: TUESDAY, MARCH 26, 1839.

Oyster shell lime as a manure.—We insert in another part of our journal to-day, a communication from Dr. Joseph E. Muse, on the efficacy of oyster shell lime as a manure. The subject is truly important of itself, but rendered doubly so when treated by a gentleman of such profound learning as our correspondent. Thanking the author for his polite response to our request, we commend his very lucid essay to the favorable attention of our readers.

A GOOD CROP—MORUS MULTICAULIS.

Last week the Hon. Josiah Collins, of Edenton, North Carolina, sold in this market a crop of Morus Multicaulis trees for THIRTY THOUSAND DOLLARS. These trees were the joint property of himself and the Hon. Ebenezer Pettigrew; and we do but sheer justice when we say, that there never has been as good a lot of trees in this market, nor do we recollect ever to have seen any, where so much well directed care had been taken, and judgment exercised, in their packing, as in this instance—"a bridegroom with his chin new reap'd" ne'er looked more comely in his lady-love's eyes than did those trees in our's; for as we viewed them, and admired the excellent condition in which they had come into our market, we could but peep, in anticipation, into that glorious future, when the offspring of those very trees, jointly with others, will bring about that healthful condition in the business and exchanges of our country, which is so much desired, and should be so dear to every patriot's heart, and for which we have been laboring with zeal for years: nor were we the less proud of these trees on account of the fact that we had sold to the first named gentleman, a part of the original stock from which he and his equally patriotic co-laborer had propagated the lot named above.

We have no personal knowledge of Mr. Pet-

tigrew, but from his enterprising character, and association with Mr. Collins, our personal knowledge of the latter, induce us to conclude, that the people of the lowlands of the Old North State, if required, like the Roman mother to produce them, might point in triumph to those two gentlemen, and exclaim, "these are my jewels;" for who are more justly entitled to distinction, than those who in their far-seeing vision look through the vista which conceals the future, and regardless of the sneers of those who cannot look beyond the present, become the pioneers in a great and holy work, which, by its benign influences, is destined to open new sources of wealth to the country in its national relation, and to unfold to honest industry the path which shall lead to competency and wealth.

TO MULBERRY CULTURISTS.

DIRECTIONS FOR PLANTING THE MORUS MULTICAULIS.

As the period has arrived when the Morus Multicaulis may be safely planted, I consider the occasion a proper one to lay down certain rules for the guidance of those who may not be acquainted with the several methods of their culture.

SOILS AND SITUATIONS.

A light sandy, sandy loam, gravelly loam, or light loam, are the soils best adapted to its culture; stiff ground or tenacious clays must be avoided, as also all low or wet grounds. The best situations are those that are elevated and dry, and the deeper the soil the better. Those grounds which have southern or south-eastern exposures are the best suited, for the following reasons: The mulberry requires both sun and air to ripen the wood, both of which essentials are best secured in the situations pointed out. They will grow in any situation, but I have always found that the wood matured with the greatest certainty when placed under the influence of these exposures.

DISTANCES.

If the trees are raised for sale—The distance should be either 4 feet by 3, 4 feet by 2, or 4 feet by 1½; the first will give 3,680 trees to the acre, the second 5,445, and the last 7,260. At either of these distances good marketable trees may be raised, but we question much whether closer

planting will not subtract more from the size of the trees than will be repaid by the increase of numbers arising from closer planting. At all events the rows should not be nearer than four feet apart; for as the trees increase in size, less distance than that will not admit of the passage of the horse to plough or harrow them, without endangering the limbs of the trees.

If the trees are planted for a permanent orchard—The best distance would be 8 by 3, or 9 by 2. Less than eight feet space between the rows will not conveniently admit carts between them to gather the leaves, which in the setting out of a permanent orchard should always be attended to, as it is a matter of the first importance. And while upon the subject I will remark that, if possible, all such orchards should be placed on a southern, or south-eastern exposure, and for this simple reason, the obvious propriety of which will strike every observer—the trees, thus placed, will yield foliage in the spring at least two weeks earlier than if situated on a northern or north-western exposure. The Morus Multicaulis tree, from an experience of years, we assert, whenever the wood is thoroughly ripened, to be as hardy as the oak, if planted on high, dry ground, therefore as foliage and not fruit is the object sought in their production, they should be placed in that position, of all others, the best calculated to encourage an early putting forth of their leaves.

TIME OF PLANTING.

The best time is as soon in the spring as you can put your ground in a state of thorough pulverization.

PREPARATION OF THE GROUND.

It would have been better that it had been ploughed last fall, as fall ploughing always conduces to the destruction of grass and weeds. But if you neglected so doing, take a piece of ground that was in root or corn culture last fall, which had been well tended and kept clean; plough it deeply; harrow it thoroughly—three harrowings will not hurt it; then roll it well, when, if your cuttings, layers, or roots, be ready, you may lay off your furrows, north and south, and proceed to plant.

MODES OF PLANTING.

By one bud cuttings. Cut up your branches

so as to leave one eye or bud upon each piece, and your cutting is prepared. The best method of placing them in the earth is to give them a vertical position, inclining the top of the cutting to the north at about an angle of 45 degrees, placing the bud so as to face the south: as you place the cutting in the earth press the soil around it firmly with the fingers and thumb, and draw a sufficiency of earth over it to cover it from 1 to 1½ inch deep.

Another method is to drop them in the furrow as you would corn, and cover with the hoe, pressing down the earth with the flat part of that instrument as you do so. This is the most expeditious plan, and if care was taken to place the bud or eye uppermost would answer well, and particularly where large transplantations are being made, as it would save much labor and time.

By double eyed cuttings. Cuttings with two eyes should be dropped in the furrows at the required distance, the eyes or buds uppermost, then covered from 1½ to 2 inches deep with finely pulverized earth or mould, which should be pressed down with the flat part of the hoe.

By Layers. By layers is meant, either the whole or part of either the main stalk or its lateral branches. I think myself that no layer should be longer than eighteen inches, and that, when the stalk is thick, not more than three joints should be allowed to each layer; and if these were judiciously split, so much the better, as each large joint if properly dissected would yield from two to four trees; but without the person attempting it knows his business he had better let it alone.

By Roots. The roots should be separated so as to leave one or two eyes or buds on the hard wood attached thereto. As the hand is about putting them in the ground he must with his hoe make the furrow sufficiently deep to admit the root so as to cover the buds about an inch or two, then press the earth around the roots with his feet, and his work will have been completed.

If it be designed to plant the root with a larger portion of hard wood attached, the person layering must be careful to make the hole which receives the root deep enough to admit the root being covered two or three inches.

Roots may either be planted flat or upright; but in either case the earth must be pressed firmly around them.

MANURES.

Almost any kind of manure will answer; but that which is well rotted is best. A compost

made of rich mould from the woods, and as he in the proportion of eight parts of the former and two of the latter is well suited to the culture of the Mulberry. If ashes be not convenient nine parts of mould from the woods and one of lime will be found to answer equally as well.

Stable, or barnyard manure, in the absence of other kinds, spread broadcast and ploughed in deeply, may advantageously be used. If the manure used be long, a few bushels of lime, say ten or fifteen to the acre, should be spread on the ground after it is ploughed, previously to its being harrowed.

Ashes from wood, bituminous, and anthracite coal, we have used with the best effects. If ashes be used, it must be spread on the surface after the ground is ploughed and harrowed in.

Bone dust, or ground bones, have been found an excellent manure for them; but before being used they should be mixed with ashes or good rich mould, in the proportion of fifty bushels of the first and ten cart loads of each of the latter, and suffered to remain in a heap for a day or two before being used, in order that the heat may be induced to pass off by fermentation. When thus prepared, the safest way to use them is to strew a small quantity along the furrows with the hand, and in covering the cuttings, layers, or roots, it will be well to avoid letting either come immediately in contact with the mixture.

Street dirt, the scrapings of roads, or, indeed, any fat earth will be found eminently useful, as the *Morus Multicaulis*, like the hog, is not particular as to its diet so you give it enough.

Lime. No matter what kind of manure may be applied, a few bushels of this mineral will be found a valuable auxiliary.

QUANTITIES OF MANURE.

Stable, barnyard manure, and compost of mould from the woods—twenty double horse cart loads per acre.

Ashes—150 bushels to the acre.

Bone dust and ashes—Two hundred and fifty bushels of the mixture to the acre.

Street dirt, scrapings of roads, &c.—Twenty double horse cart loads to the acre.

Plaster of Paris.—A bushel to the acre strewed over the plants after they are up and in leaf will prove serviceable.

Lime—Twenty-five bushels to the acre.

CULTURE.

The whole art of the culture of the *Morus Multicaulis* consists in keeping the ground entirely free from weeds and grass, and well stirred. As

soon as the mulberries make their appearance above the earth, and are distinguishable, a careful person should go through the patch and relieve them by hand of all weeds and grass. As soon as this is done let the Cultivator be run through the furrows so as to root up and destroy all noxious vegetation: when the work of the cultivator has been performed, let your hands, provided with good sharp hoes, go from hill to hill and perform the double operation of extirpating every vestige of grass and weeds, and lightening up the soil so as to receive the benefits of dew, sun, rain, and atmosphere. As often as the grass appears, destroy it with your cultivator or hoe. If you do this work early, you will never have occasion to use the plough, for the cultivator used at the right time will be sufficient. I will conclude by admonishing you not to work your *Morus Multicaulis* trees after the 1st of August, and beg leave to subscribe myself,

Your obt. servt.

EDWARD P. ROBERTS.

The Legislature of New Jersey has passed a law making it a criminal offence to steal mulberry and other trees. This reminds us that Maryland has not as yet done any thing for the silk culture, though as deeply interested in its success as any other State in the Union. Further delay in acting upon the bill may prove highly injurious.

PRESCRIPTION FOR A SWELLING.

Take a handful of the green leaves, or ½ oz. of the seed of wormseed; bruise and stew in vinegar; then add a sufficient quantity of the crumbs of stale bread to make the poultice large enough to cover the swollen part; and also a small quantity of sweet oil, lard or fresh butter. The poultice thus prepared must be applied warm to the part, and should pus or matter not be formed, it will stimulate the absorbent vessels, enable them to perform their offices, and give prompt relief. It is the best application for all kinds of swellings we have ever tried, and is particularly happy in its curative effects in the swelled breasts of suckling mothers, never failing in a single instance when used in time to discuss the swelling and prevent gathering. This simple prescription is worth all the nostrums of the books. In saying this we speak from a practical knowledge of its wonderful powers, and we enjoin it upon our brethren of the editorial corps to copy it for the benefit of suffering humanity.—*Editor Farmer and Gardener.*

Let no farmer who can raise the means omit to plant *Morus Multicaulis* cuttings this spring—*Now is the time.*

For the Farmer and Gardener.

CAMBRIDGE, Md. Feb. 27, 1839.

E. P. Roberts—Dear Sir—I have seen in your valuable paper an editorial request, "that such as may have used lime from shells, will favor the public, through your columns, with results," &c., and you most truly add, "the subject being one of deep importance to a very large portion of the agriculturists of the country."

Your request, it seems, is particularly elicited by a communication signed 'Subscriber,' on the effects of *oyster shell lime*, rather discouraging.

I am pleased to find, upon reading the communication referred to, that the author acquits you of coincidence of opinion with him—in other words of being a "particeps criminis" in this very singular offence against experience, reason, and I might add, against the laws of nature herself.

I had flattered myself with the possibility, until I had read the paper, that in your multifarious avocations, you might have misconstrued it, but I found on the perusal, that no other meaning can be forced upon it, than that *oyster shell lime* has no efficacy as a manure.

By what process has your author arrived at this conclusion against *oyster shell lime*, as a manure? Inasmuch as it is in hostility with competent testimony, in Europe, as well as America, it should, if intended to operate on the agricultural interests of the country, have been very particular, very strong and conclusive.

Nous Verrons—In 1832 he made "a compost of equal parts of *oyster shell lime* and *rich earth*, collected from fence rows," and "the result was exceedingly favorable"; but, he is "convinced, it was partly owing to the *rich earth*, and *deep ploughing*."

Of the truth of this conviction, the warmest advocate of lime from shells, or stone, can entertain no doubt.

It never has, to my knowledge, been contended, that lime, of itself, without other manures, as well as good culture, was sufficient to consummate the best wishes of the agriculturist, in "favorable results."

Any two kinds of manure, not incompatible in their nature, made into a compost, and used, may, each of them, be very reasonably supposed, to have contributed "partly," to a "favorable result;" but yet, this affords no argument against either; and in the conclusion, your author draws from it, against *oyster shell lime*, he is palpably guilty of a *non sequitur*.

In the spring of 1834, your author spread about four thousand bushels of *oyster shell lime* on twenty-four acres, or about one hundred and sixty-seven bushels per acre, and without effect on his corn, or timothy; he does not say whether the land was rich or poor, light or stiff, wet or dry: if poor, and light, the quantity, by my experience, was about three times too much; and no benefit, but, rather an injury might have been expected: if wet, even though rich, no advantage should have been anticipated by the general consent of mankind.

In 1837 he applied one hundred bushels to the acre, and had no effects from it; and throughout all his reports, as well as this, he names none of the conditions under which this, or any of them were made, and from a knowledge of which, only, fair conclusions could be drawn, from his, or any other experiments: and from his omission of these accompanying circumstances, which are essential to a due appreciation of his several and unfortunate results, in their bearing upon the subject in question, no validity can attach to his objections, founded upon them, against the use of *oyster shell lime*, under suitable conditions; and the inference is reasonable, that the author not having made himself acquainted, by a previous practice, or study of this subject, was not himself apprised of their necessity, for his experiments, or reports; and consequently, that he really did not call in their aid on either occasion, to authorize the expectation of "favorable results" which are experienced by others.

From his particular designation of *oyster shell lime*, it is taken for granted that your author means to discriminate in favor of *stone lime*.

Upon this discrimination, I will make a few remarks, because I have found, that a preference has been frequently given to *stone lime*, over *shell lime*, though I never before heard the opinion, that *shell lime* had no effect.

The idea of the inferiority of *shell* to *stone lime*, I repeat, is not unusual; but I maintain that it is erroneous, as it regards either mortar or manure.

I maintain, though against fearful odds, I am aware, that *oyster shell lime* is superior to *stone lime*, for both mortar and manure, or for any purpose for which "lime" is used.

By a frequent analysis of *stone lime*—and during the last fall in particular—of a parcel, which I had purchased, at the highest price, and said to be of the best quality, I have found, from thirty-three to thirty-six per cent of "fine silicious sand," whereas the *oyster shell lime* is nearly pure, having only two or three per cent of "animal carbon."

These facts are unquestionably true; and may be tested; or open to all who doubt: and, they establish this truth—that a given weight of "lime" from *oyster shells* contains nearly fifty per cent more of the pure substance, than the same weight of "lime," from the *stone*, contains: that is, by so much the purer is the *lime* obtained from *oyster shells* than that from *stone*.

But, "lime," "gold," "silver," "copper," and all bodies in nature, are identified, valued, or depreciated, by their respective, natural, inherent properties. It would be absurd to say, that "gold" obtained from one ore, was inferior to that obtained from another kind of ore; from whatever source derived, the properties of the metal will be the same; and equally unquestionable, is the truth with "lime."

But it may be said, that admitting the natural, inherent properties to be identical, yet there are accidental, or acquired properties, which may increase, diminish, destroy, or, in some way, alter the substance, materially.

It is clear, that both the kinds of lime in question, are liable to this influence; yet take them—*ceteris paribus*—*oyster shells* and the *stone*, each prepared in the same manner, and with the

same care, and they will produce "lime," having each the same identical properties, though more or less alloyed with foreign matters; and the difference of purity will be in favor of the "shell," as before stated, by nearly fifty per cent in similar weights.

Theoretically, then, it would seem, that no question can be entertained on the subject; and in fact, that *oyster shell lime*, is really preferable to *stone lime*, inasmuch as it is purer.

Practically, I think, that the heterodoxy of your author is equally concluded; and that whatever may be the properties of "lime," they will be found, to develop themselves, in equal degree, under equal circumstances, be its source what it may.

Common experience teaches that lime of any kind, which has been *air slaked*, or, in other words, which, from exposure to the atmosphere, has become a carbonated hydrate, is unfit for mortar.

The same experience has taught us, that *shell lime* is carelessly prepared, and as carelessly exposed, in common practice, by farmers and others, for many months, for occasional brick work, when at leisure; whereas, the *stone lime* is carefully made in well constructed kilns, and immediately barrelled for future use: hence, its superiority for mortar, generally acknowledged: reverse these accidents, and you will reverse their characters.

This accidental, or artificial superiority of the *stone lime* for mortar, has given rise to its superior reputation for strength, in general; and it is a vague, erroneous idea, not founded in nature, but in art; or rather in a want of art.

One of the most sagacious and experienced masons in Baltimore, confirms the preference of *shell lime*, over *stone lime*, for mortar; that it is better, and as he termed it, it will go further, if well made, and preserved; and he must be correct, because, as before stated, it contains nearly fifty per cent more of "lime," by weight: by volume, the disparity would be much less, because the foreign matter of the *stone lime*—"silicious sand"—is heavier than that of the *shell lime*—"animal carbon"—and many more pounds would be found in a bushel of the former, than the latter; and thus by the difference of their specific gravities the disparity would be reduced—that is, it would be less, by the bushel, than by the pound.

For the purpose of manure, the carbonate, a state which lime soon acquires by exposure to the air, and the one, in most instances, the most suitable, the preparation, if it be well burnt, and protected from water, is immaterial; and the two kinds in question, must necessarily exert equal energies in the ratio of their purity; and subject also to the conditions of their application, with this difference, only, that the animal carbon,—the impurity of the *shell lime*, is superior, as a manure, to the silicious sand,—the impurity of the *stone lime*.

You ask for experimental results, &c.:

I have used *oyster shell lime* as a manure, upon various denominations and conditions of land; at first indiscriminately, until taught otherwise by my experience, and that of others, among whom stands most prominently, Mr. E. Ruffin, the author of perhaps the most valuable essay extant,

on "Calcareous Manures," where science teaches practice, to wit: That upon wet lands it is labor lost to apply it; upon others, that it should be varied in proportions; in my opinion from one hundred and fifty to thirty bushels per acre, graduated by the equivalent matters on which it may have to act.

I will finally remark, again, that I have for many years—with a *continuando*—used oyster shell lime, as a manure, on an extended scale; and have experienced from it, the most favorable results, a detail of which would fill your paper unnecessarily.

Unfortunately, we have in Dorchester but few shells, in comparison with the demand; no limestone, and no marl. My chief supply of shells is obtained from Baltimore, with much cost and trouble, for which I am amply remunerated.

You will be so kind as to pardon the length of my paper, occasioned by a general view of the subject, not intended when I commenced it.

As the purport of your request, is to collect evidence, "on a subject, (as you truly express it, of "vital importance"; and, as *anonymous* evidence cannot, in the nature of things, though perfectly true, be available, in any case, I will add,

I am, respectfully,
JOSEPH E. MUSE.

PHILADELPHIA, MARCH 21st, 1839.

EDWARD P. ROBERTS, Esq.

Dear Sir:—On referring to the Farmer & Gardener of the 1st inst. and to the concluding paragraph of my memorial to Congress, you will perceive that you have unintentionally done me great injustice; and, on re-examining the memorial, you will perceive that I have cautiously avoided "making a stipulation as a price." I have always refused to name any "price." On the other hand, I have said to members of Congress, that, whenever Congress will fix upon a "price" which that body deem a fair compensation according to the value of the discoveries, I will instantly publish to the world what the discoveries are, and trust to some future Congress to pay the amount after the public shall have proved the discoveries to be as represented by me.

Giving satisfactory reasons, why it would be for the public good, to pay a large amount, say, less than one hundredth part of the value; or, stating that a mere brokerage or commission, without any of the capital or interest would satisfy me; I conceive to be a very different thing from saying, that such brokerage or commission is my "price." When I set a "price" upon an article, I generally ask its full value; and, when I intend to take less than its value, I say, what will you give?

A member of Congress said to me, "Alabama will give you a million of dollars to keep the insect from the cotton plant."

North and South Carolina, I am informed, gave \$90,000 to the HEIRS of the inventor of the Cotton Gin, a valuable machine. The inventor, I am told, died penniless. So far as these two States are concerned, I have acknowledged that a less amount would satisfy me. And I now state that I will take any amount that the STATES choose to offer, upon their own terms: and when any one of them shall have offered a premium or

made an appropriation for such discoveries as, by members of the United States Senate from about one half of the States, I prove I have made; I will then commit my discoveries to paper, to prevent them from being lost to posterity. I conceive that a comfortable livelihood is of more consequence to me than the monuments of future ages.

I have the pleasure of being,
Your sincere friend,
RUSSELL COMSTOCK.

VEGETABLE PHYSIOLOGY AND THE CULTURE OF FOREST TREES.

The following correspondence, which we have been permitted to publish, contains some interesting facts in relation to Vegetable Physiology and the culture of forest trees.

Hampden, Penobscot Co. Maine, }
May 14, 1839. }

GENERAL DEARBORN,

DEAR SIR—Having been much instructed by your letters on planting forest trees, recently published by a committee of the citizens of Bangor, who are at this moment, you know, all alive to the subject, it has occurred to me that I may venture without any especial introduction, to communicate to you the details of some very recent observations in relation to the form and growth of our forest trees, which I believe to be new, and possibly entitled to a more extended examination than may be made on this or any other single position, assured that, if nothing interesting shall be found in them, I may find an apology for the trouble of this letter in the motive which has induced it.

The fact that the trunks of our trees, especially the lower portion of them, are not cylindrical, but elliptical, I, I suppose, familiar with every one in this timber growing, and timber cutting country.

But that these ellipses are parallel with each other, and that this form and this arrangement are not the consequences of accident, or of local and partial, but of causes constant and uniform in their operation, are truths, which, as far as I know, have thus far escaped the notice of horticulturists and others curious in these matters.

Measuring last week, a row of Elms planted in 1820, for the information of a friend in Bangor, I observed that the trunks were not only elliptical, for this I had frequently noticed, but that the ellipses were parallel, and that the course of the longest diameter was about 30° to 33° east of south and west of north, on the true meridian, and that the southeasterly curve was the *quickest* or more elongated than that on the opposite side.

As the form of these trees might possibly be affected by their too close, or crowded positions, in the row which is east and west, I proceeded to measure a large number of trees of various kinds, some of them standing in open ground, others in a thick grove, and others on the margin of the thick wood with open ground on one side only. In these various situations, the trees were taken promiscuously, rejecting only such as were misshaped by accident. No difference material to the principle could be perceived, either in the form or in the direction of the ellipses.

It is important here to remark that the largest roots and most thrifty branches are evidently dis-

posed with reference to the longest diameter of the ellipsis—the strongest and most extended of these to the southeastward.

The form of the trunk, then, is very clearly referable to the disposition of the principal roots and branches and is a necessary consequence of the reciprocal action of these upon each other. But why this peculiar and uniform disposition of the roots and branches, is an enquiry not so readily answered. And should it be deemed worthy any farther pursuit, I beg that the following circumstances may be kept in view.

The line of the ellipses is nearly perpendicular to the line of the sea coast. It is also nearly in a line with our most violent southeasterly winds, and not many degrees from that of our northwesterly.

It is a very familiar fact that our rivers and water courses have a decided influence upon the trees in their vicinity, inducing an unusually abundant and vigorous vegetation on the water side. How far the humidity of the sea, combined with the general warmth of the morning sun, may influence one side of trees, at a distance of 20 or 30 miles, I will not undertake to conjecture, but while I do not presume to give any precise value to this circumstance, I think it worth keeping in view in any farther investigation, till farther observation shall determine.

That the strong winds alluded to, by constantly, or very frequently, agitating the tree and trying its strength, should induce corresponding efforts to resist their force and to extend its supports, enlarge its trunk in the line of assault, and lessen the volume of branches and foliage in the lateral directions, so as to prevent the least possible surface to the action of the assailant. All this is very intelligible, because it is in accordance with the uniform operations of nature. But if this were the sole cause of the phenomena in question, it were difficult to understand why these arrangements should not conform more exactly with the almost uniform current of these winds. If however the causes suggested shall be found to unite their slightly varying forces to produce the effects, it will be seen that they respectively modify without overcoming each other. The direction of the ellipses, is in a line inclining from the perpendicular of the coast, towards the line of the S. E. and N. W. winds, but coincident with neither.

Most respectfully, Sir,

Your very obedient servant,
JEDEDIAH HERRICK.

This table shows the greatest, the least, and the average difference of diameter in the order expressed, the difference being a proportion of the longest diameter.

| | | | | |
|---|------|------|------|--------------------------|
| 20 Elms, | 1-5 | 1-28 | 1-11 | of the longest diameter. |
| 15 Oaks, | 1-7 | 1-30 | 1-15 | " " " |
| 9 Firs, | 1-6 | 1-46 | 1-25 | " " " |
| 4 Birches, | 1-5 | 1-9 | 1-7 | " " " |
| 4 Baswood, | 1-5 | 1-11 | 1-7 | " " " |
| 3 Beaches, | 1-8 | 1-12 | 1-10 | " " " |
| 3 Hemlocks, | 1-12 | 1-18 | 1-15 | " " " |
| 4 other Hemlocks were found to be nearly cylindrical. | | | | |

Hawthorn Collage, }
Roxbury, May 16, 1838. }

DEAR SIR—I am extremely obliged to you, for

the very interesting facts, which you have so kindly communicated, in relation to the contour of the trunk and the extension of the branches and roots of forest trees. They were new to me, and I do not recollect to have seen any allusion, in the works on botany and vegetable physiology, to the elliptical form of the cross section of the main stem, which from the statement you have made, appears to be universally the case, and to have been long and generally known, to the "timber-cutting" citizens of Maine. The cause of that peculiarity seems, however, to be sufficiently apparent. You state, that the longest diameter of the ellipse is in a direction from north 30° to 33° west, to south 30° to 33° east; and that the branches and roots, as well as the elliptical section of the tree are elongated, in a southeasterly direction.

Now, it has been established, by experiment, that a south-easterly exposition is the most eligible for the fronts of green-houses, as that affords the best opportunity to the plants for receiving the earliest morning rays of the sun, and for enjoying them for the longest period, and especially, at those seasons of the year, when their vivifying influence is most required and congenial. The line, therefore, which has been found preferable to all others for the facade of green-houses, or the direction of such walls, as are intended to favor the growth of fruits and other vegetables, is very nearly perpendicular to that, which nature, it seems, has so remarkably indicated, from the manner in which forest trees are disposed to extend their vegetation.

Every person who has resided in the country must have observed, that on the south-easterly slopes or sides of hills, embankments, ponds, rivers, streams, buildings, and close fences, vegetation commences sooner in the spring and is more actively kept up during the season, than in any of the other exposures.

But there is another cause, besides the more direct effect of the solar heat, which powerfully aids vegetation, in such position,—the protection afforded by the various artificial and natural barriers that have been named, against the cold and blighting north west winds, which have such a deleterious effect on all kinds of plants, as well as rendering our winters so terrifically rigorous, our springs so backward, our autumns so premature, and so many days, of even our summers too cold for the complete fructification and maturity of nearly all the vegetable productions, which are objects of attention to the farmer and horticulturist. The vast regions of perpetual ice and snow, which extend from the pole towards the borders of the United States, with the mighty range of the Rocky mountains, towering into the heights of uninterrupted congelation, and the lateness of the period when the ice and snow disappears from the great lakes, and immense forests reaching within even our own bounds, have a direct and powerful tendency to render the north-western wind, the most prevalent, at least, throughout New England, and all the states and territories which extend westward, from the Hudson, to the base of the Rocky mountains; and which are so fatal to the hopes and labors of the cultivators of the soil. The latter therefore have endeavored to guard against their withering and destructive ravages, by structures of various kinds, as well as to invite the first

beams of the sun, to smile upon their cherished families of the vegetable realm.

Have not the forest trees made a like effort and are not the results in harmony with these well established principles? Vegetable physiology has made great progress within the last half century; and more recently, the laws by which it is regulated, have been clearly illustrated, by numerous experiments in England, France and Switzerland. A tree is now considered, by the most able and distinguished writers on this subject, either as an aggregate of as many distinct plants, as there are buds on its branches, or as one being, analogous to what is called, when speaking of animals, an individual; but in both cases, the mode of nutrition and increment is the same. The elementary substances being liquified are conveyed in the sap through the alburnum, and exposed to the light, air and heat of the sun, on the upper surface of the leaf, where are exhaled those vapors and gases which are not conducive to the health, or support of the plant, and others elaborated, or inspired from the atmosphere indispensable to the formation of wood, bark, fruit, gums, rosins, oils, aromas and saccharine or other matter peculiar to the several species, which are transmitted by the returning circulation, that commences on the inferior side of the leaf, and descends in such a manner in the cortex, as to create through the medium of the cambium, all the ligneous and other parts and substances, which have been named.

As these vessels, which like the arteries and veins in animals, conduct the sap, from the spongioles of the roots to the highest leaf, and bark, through the cortex, are separate and independent, for each bud, throughout the whole extent of the tree, as so many isolated plants, those which are most favorably situated for receiving the earliest and greatest portion of heat and light, will be the soonest in active operation, and continue to exercise their functions, for the longest time, during each day and from the dawn of spring, until the autumnal frosts terminate all vegetation in the foliage; consequently the roots and branches, as well as the side of the trunk, on which those vessels are arranged, will increase faster and for a longer period, and thus produce results, which you have actually verified. Besides the trunk of the tree is, itself, a thick and impervious wall to protect the sap vessels and other parts of vegetation, of each bud belonging to the south eastern side of the tree, from the blasting winds of the north west,—while it is also a vast combination of delicate pipes which are constantly conducting heat from the earth, that grand and inexhaustible reservoir of caloric, and distributing it throughout the whole mass, and to the end of the minutest twig, whenever the temperature of external air is below that of the earth, or the surface of the latter is frozen, but not so deep, as to reach the extremities of all the roots.

The theory I have attempted to establish has been based on the facts presented in your letter, and the practical operations of the cultivators of the earth, as well as the accredited principles of vegetable physiology, the known effects of heat, light and air on plants, the characteristics of our climate, and the general laws of nature in all her wonderful works; but whether it affords a satisfactory explanation of the phenomenon, which you have been the first to announce, I am not

sufficiently confident to affirm; and have presented it, rather, with the hope, that others, more competent, may be induced to make greater researches, and give the subject that thorough examination which it so eminently merits.

I am ever highly gratified in becoming acquainted with those, who have a love for trees and a taste for their cultivation; it is therefore pleasing to have commenced a correspondence, on a subject of such congenial interest.

In a country so eminently favored as this, by the vast number of the beautiful and magnificent varieties of trees which embellish our forests, compared with those which are indigenous to Europe, it is not a little surprising, that a deeper interest has not been developed, for rendering them tributary to the health, comfort and pleasure of the people, by considering them as indispensable to the completeness of a country residence and the public edifices, squares, grounds and highways, as are any of the appendages, which are deemed useful, ornamental or agreeable in either.

It is time that some portion of the population should begin to plant, and foster trees, and not all continue united with those, who are for the indiscriminate destruction of our superb native groves. When I resided on the banks of the Kennebeck river, as a boy, the county of Kennebeck was as much a wilderness and lumbering region, as any on the waters of the Penobscot river; but so reckless and wide spreading has been the devastation of every variety of tree, and in which work of repentance, the farmers have been so actively conspicuous, that many of them are now obliged to go many miles for their fuel, and pay a high price for it. These lessons of sad experience should not be neglected; and the gentlemen of Bangor, who have with such commendable zeal, formed an association for ornamenting that young and thrifty city, with trees, appear determined to leave honorable memorials, that they have not been either heedless of the errors of the past generations, negligent of the interests of the present, or indifferent to those of the future.

Such demonstrations of an enlightened and munificent public spirit are worthy of all praise; and may their meritorious example induce the citizens of all our towns, to exclaim, with the determined energy of the venerable Evelyn, "LET US ALSO RISE UP AND PLANT."

With great esteem,

Your most obedient servant,

J. HERRICK, Esq. H. A. S. DEARBORN.

[From the Southern-Carolinian.]

CULTURE OF COTTON.

LOCUST GROVE, Abbeville Dist.

MR. EDITOR:—I have searched in your agricultural columns, but in vain, for some article on the culture of Cotton. Are our planters not aware of the paramount importance of this production of our country? Or is it taken for granted that every person knows how to raise it? So every person knows how to fatten pigs. But there are improvements, and these improvements should be disseminated, for the benefit of all. Cotton is the chief source of the wealth of the Southern States, and contributes largely to the comfort of millions of the human race. We cannot improve in the culture of it too much.]

would not recommend that we should raise more than we do; but with care and attention, the same quantity may be raised on much less ground, by which our lands would not be so soon exhausted. Land is the only real wealth of our country, and it is surely unpatriotic in the people, to destroy or waste it. It is impoverishing their posterity.

What is there worthy in a man's accumulating a considerable fortune, if, in doing this, he has laid waste more land than would support his posterity for generations to come.

Cotton seed should be procured from the best ground, where the cotton has been well worked, and the bolls fully matured, gathering, for this purpose, the middle bolls: that is, separating the first opening and the last, from the second. The first bolls become grown when the stalk is young and not prepared to give to the seed that perfection which it does in a maturer growth. The last opening is generally immature, from the decay of the stalk, cold winds, early frosts, &c. That which is intended for seed, should be picked out when dry, and never allowed to heat, or ferment, which would occasion a decomposition of its parenchyma, and a predisposition to rot while growing. This partial fermentation of the seed will not prevent its germination; but its nourishing principle being injured, the young plant will not have that constitutional vigor, so essential to perfection in growth, but will be susceptible of all the disasters incident to the cotton crop. It is equally as important that we should extend a care to the preservation of our seed, as to the preparation of the soil. A defective seed cannot bring a perfect plant. The more pains we take with regard to the preservation of our seed, the less will be their degeneracy. The land should be thrown up in beds as early as possible with a turning plough, which will hasten the decomposition of its vegetable matter. Low moist land should be drawn up with the hoe, but no other. Some people contend for a rigid system of management, as to the time and manner of planting and working a crop; but, as there is no regular time or way of managing, which will suit the precarious seasons of our climate, all plans must be modified according to circumstances.

There is a prevailing opinion among planters, that the sooner cotton is planted, so that it is not killed by frosts, the better. This is an error of considerable magnitude. If experience did not prove to the contrary, we should need no better evidence, it seems to me, than to know that the cotton plant is a native of a warmer climate than this. In Florida, the West Indies, and Mexico, where there are no chilling winds or frosts to stunt its growth, cotton grows to greater perfection than in Carolina or Georgia. Cotton ought not to be planted until there is evidence of a permanent change from cold to warm, which time every man's experience will dictate. Cotton will then come up and grow off sooner than that which has been injured by frosts, or cold winds. Before planting, the seed should be rubbed in ashes moistened with water. This will cut the lint, so that the seed can be cropped more regularly. And the ashes which stick to the seed are highly beneficial, as they impart their alkaline qualities to the young plant, and accelerate and give vigor to its growth. Some planters rub their seeds be-

fore planting in lime; but I prefer ashes, because its inherent principle, (Alkali,) is not only a stimulant, but a nourishment also: Whereas, lime is only a stimulant, and might, in some instances, engender want. Ashes have a two-fold advantage. They give a healthiness to the young plant, and an impetus to its growth, which renders it less susceptible of the influence of circumstances.

After the cotton is up, a scraper should be run round, if the land is bedded. This will not throw the soil down, and leave the cotton standing on a narrow ridge, which would impede the progress of the hoes, in chopping out. The cotton should be left in bunches of three or four stalks at a place—the distance, suitable to the strength of the ground, not putting it to an entire stand until the second time. A great deal is often lost in the cotton crop, by its being too close in the drill. The stalks should stand at such distance as at all times to admit the sun to shine through upon the ground. It is the genial warmth of the sun, with a free circulation of air, that causes the cotton to bear, mature, and open. After chopping out, the cotton should be run round with a turning plough, the bar next the cotton. This throws the soil to the middle, covers the young grass, and admits the warmth of the sun to the roots of the cotton; but it should not stand long in this condition, before it is run round again, with one or two furrows, throwing the soil back to the cotton. It is then in good condition for the second hoeing. In hoeing the second time, the cotton should be put to a perfect stand of one stalk. Those which are to be removed, should not be chopped off with the hoe, but should be pulled up with the hand. This is the speediest way, and the most practicable, as there is no danger of bruising those which remain. It has been shown by experiment, which is better than all the theories that can be adduced, that one stalk at a place, giving it the proper distance, will bear more and better cotton than two stalks or more. And this is not at variance with the theory of the times; for two stalks cannot draw more matter from the earth, than the earth will yield to one, but on the contrary will exhaust the earth of those ingredients material to the formation of the cotton, which is the ultimate purpose of the cotton planters. And no planter will deny that there is more efficacy in a perfect plant, than one that has been bruised, mutilated, or wounded, in any way. Its transpiration is free and unrestrained; no waste of its juices, their renovating principle being carried out to their ultimate perfection. We may attribute, and very correctly too, the barrenness of some stalks to the wounds and bruises which have been inflicted, when young, either upon the stalk, or about its roots. And might we not, with equal propriety, view this as one of the causes which hasten the degeneracy in our seed. Could we but view scientifically the progress of the cotton plant, from its germination to maturity, and see the analogy of its constituent parts, we would see that a perfect growth is necessary to the perfection of seed. Then surely it would be prudent in every planter to use these necessary plants; they require no more time, and would evidently increase the quantity upon the ground. And the purity of the seed would be a great desideratum in the next crop.

The third working should be given with as

much or more care than the second. The roots are then spreading in every direction, and the stalk is in a good way of bearing. There is a universal practice among some planters, in the third, and in the last working, to plough deep and bed up high. This is an error which is attended with inconceivable injury. Every experienced planter knows that there is the bulbous or large root, that strikes perpendicular and deep into the ground, and the fibrous or small roots, that run horizontally immediately under the surface of the ground. The office of the latter is to seek for nourishment, which is essential to the support of the bolls. The main root, which strikes into the ground, collects moisture, and supports the stalk. Now what must be the result of cutting those fibrous roots with the plough, in dry weather, or at any time, for we have no warranty of rain? The consequence must be a dropping of the bloom, and a barrenness of the stalk, until rain come again, that the roots may take a fresh start to grow. Or even if the ploughing should not be of sufficient depth to cut the roots, the soil is drawn off with the hoes, in piling it round the stalk—the earth dries to its usual depth, and these roots are exposed to the burning rays of the sun. I have seen the effect of this so strong as to fire the lower leaves of the stalk.

Another attenuative consequence of the high bedding system, is, that the cotton derives no benefit from light showers. The water inclines to the middle, and runs off or evaporates, and does the cotton no good. Nothing short of a thorough wetting rain will do any good.

Perhaps some one would enquire, am I totally opposed to the bedding system? I would answer, there is a medium in all things. Every virtue carried to excess, becomes a vice. A broad flat bed would serve the requisite purpose. My plan is to run round with a broad scraper. This runs immediately under the surface, destroys the small grass, and neither tears down or throws the bed up higher; and with one or two furrows, with a turning plough, to split the middle, then, if necessary, draw from the middle furrows, with the hoe, a little of the soil, depositing it on each side. This answers the double purpose of shading and accumulating moisture about the roots of the cotton, and absorbing more water during light showers. Whereas, the high beds lose more moisture even in dry weather, because evaporation goes on from the surface of the ground. The surface being increased, of course evaporation is increased.

It may be thought that these little cares and pains are too trivial and unimportant to compensate for the additional trouble. But if there is any thing in three years experience and observation, I am prepared to say that they amply repay for all this additional trouble. "Without pains, there are no gains, as poor Richard says."

ROBERTS' SILK MANUAL.

In Pennsylvania House of Representatives on Wednesday, Mr. GORGAS, from the committee on agriculture, made a report, which concluded with a resolution recommending that the Clerk be authorized to purchase fifteen hundred copies of the Silk Manual, published in Baltimore by E. P. ROBERTS, for distribution among the people of the State. The resolution was adopted.

Blight in Grain caused by Barberry Bushes.
—We find a strong confirmation of the correctness of Sir Joseph Banks, in saying that barberry bushes caused rust or mildew in corn crops, in a communication of the Rev. Dr. Singer to the Highland Society of Scotland. The distemper on the crops, amounted to more than £1000, or \$4,444; that Sir W. J. Hope, to test the correctness of Sir Joseph's theory, caused the total extirpation of the barberry bushes on his estate; and that since that was done, and for above 20 years, no such distemper has appeared in his fields. And he adds, the same thing has been done in some part of Ayresshire, and the same result has followed.

It is not intended to be understood, that the barberry bush is the cause, but merely a cause, of the mildew. The mildew, or rust, is known to be a parasite; but it is contended, that this parasite belongs to a genus that upon the barberry bush is not the species found upon wheat, oats, &c. The mildew prevails where there are no barberry bushes; but if we admit the malign influence of this bush upon grain, we may with equal propriety admit, that other trees and shrubs which, like the barberry, are the home of rust, as the poplar, willow, and a great many others, have an equally malign influence upon the grain. Two contingencies must occur, it would seem, to favor the propagation of mildew—plants affording its seeds, and a suitable state of the atmosphere to waft these seeds to the standing grain.—*Cull.*

WORMS IN SEED CORN

With the following communication we received a sample of the corn and the worms therein named; the whole were forwarded to a distinguished entomologist who has politely favored us with the answer annexed. Man has thousands of enemies that feast upon the fruits of his labor, and he should carefully learn their peculiar habits in order to avoid their depredations.—*Yankee Farmer.*

MR. EDITOR:—The time for gathering seed corn is not the same with all farmers. Some gather (select) from their standing corn; some select as they husk, and others pick it from the corn crib when they are ready to use it. The second method is the one I adopt and make choice of twin ears as they are generally called. But the time of gathering is not the subject of remark; I have mentioned that merely to show that the time of gathering cannot have produced the evil which has befallen my seed corn.

Some time in the fore part of December I had occasion to pass by my seed corn which was hung up in bunches of from 20 to 30 ears each, in a tight, dry room; and I noticed the excrements of worms adhering to the kernels on the cob, but did not think my corn was inhabited. Some time after this I found the excrements increased, and on examination I found in one kernel the worm which I herewith forward in a phial of camphorated spirit. In the cob under the kernel was a hole made probably by the worm, but whether it was bred in the cob, in the corn, or elsewhere, is more than I can tell.

For your inspection I forward the tip part of an ear that you may see what havoc the creatures are making or have made. The time of their sojourning in the corn may have passed, and they entered on another existence, if so, they cannot be

traced; but if you are able to find one or more of the "corn fed creatures," and can stall it, you may be able to ascertain whence it goes, if you cannot whither it comes.

Shrewsbury, Jan. 21, 1859. T. W. W.

MORUS MULTICAULIS.

The subscriber offers for sale 16,000 Mulberry Trees and 200,000 cuttings, warranted to be the genuine *Morus Multicaulis*. The trees are remarkably healthy and will be delivered at such time as will suit the convenience of purchasers. Orders (for not less than 100 trees) from the country will be promptly attended to.

M. POTTER,
fe26 46 South Charles street.

SILK AGENCY,

Corner of E. and 7th streets, Washington City, D. C.

The subscriber having commenced an Agency for the purchase and sale of *SILK MULBERRY TREES*, and all articles connected with the growing of Silk, offers for sale the following varieties of Mulberry Trees at Baltimore prices, viz. *Multicaulis*, *Alpine*, *Broussa*, *White Italian* and *Canton*; also *Mammoth White Silk Worm's Eggs*, warranted to be of superior quality. All the recent publications on silk growing for sale, and subscriptions received for the various periodicals devoted to that subject.

FOR SALE,

A valuable FARM of prime soil, on the Western Run in Baltimore county, about two miles north west of the 14th mile stone of the Baltimore and York turnpike road, and at the same distance from the depot of the Baltimore and Susquehanna rail road, at Cockey's tavern, in a rich, highly cultivated and healthy tract of country.

This farm contains from 260 to 270 acres, having a full proportion in wood, much of which is building timber, peculiarly valuable in that neighborhood; is in the best state of cultivation; a considerable part in productive timothy meadow, and the residue of the arable land, not in grain, is well set in clover, the whole under good fencing, laid off into convenient fields, each of which is well watered. The farm has a large quarry of excellent building stone. There are on the premises an apple orchard of select fruit trees, which seldom fail to bear abundantly; a valuable mill seat on the Western Run, with a race already dug. There is no location in the country more favorable for a grist mill, having the advantage of a rich and thickly settled neighborhood, and a good public road leading thence to the turnpike road. Buildings substantial and convenient, being a *STONE DWELLING*, and kitchen of two stories; a large stone *Switzer barn*, with cedar roof and extensive stabling below; large hay house and stable for cattle; stone milk house near the dwelling, with a spring of fine never failing water, with other out-houses. On the country road near the mill seat a good house and shop for a mechanic, under rent to a good tenant. It is well known the lands on the Western Run are in every respect equal, if not superior to any in the county. Adjoining or near are the lands of Col N. Bosley, Daniel Bosley, Thos. Matthews and others. The water power, with about 20 acres of land, is so situated that they may be detached and sold separately, without injury to the rest of the farm for agricultural purposes. Terms of sale will be liberal. Apply to

NATHANIEL CHILDS,
on the premises, or to
WILLIAM J. WARD,

MOLAND'S IMPROVED SILK SPINNER.

The attention of Silk Manufacturers is invited to the recent invention of an improved Silk Spinner, by Mr. Harrison Holland of this town, for which he has obtained letters patent. It is thought to possess many advantages over any machine now in use for the same purpose. By its peculiar construction, it can be moved by hand, steam or water power,—and doubles, twists and spins the silk at one operation. For family use, or persons wishing to manufacture silk in a small way, it is undoubtedly the best invention in use, while it is equally well adapted for factories on the most extensive scale.

A machine in full operation may be seen, or for a more particular description of it, reference may be had to a Circular published by the subscribers, which can be obtained by any one upon application either to

HARRISON HOLLAND, or
STODDARD & LATHROP

Northampton, Mass. Feb. 27.

mh 5 6

POTATOES.

1,500 bushels POTATOES, from Portland, Minnain good order for sale in parcels to suit purchasers by

WILLIAM CHILD,

mh 12 3½ No. 88 South Street, Bowly's.

SPLENDID BLOODED STOCK FOR SALE.

The proprietor of Covington farm will dispose of the following fine bulls on reasonable terms, viz.

One bull two and a half years old.

One do. six months old.

of the improved *Durham short horn breed*; the dam of the first was got by the celebrated bull *Bolivar*; for size, form and beauty they are not surpassed by any animal in the state.

Three *Devon Bulls*, one of which is seven years old next spring, and the largest *Devon* in the State. The *Devons* are from the stock of the late Wm. Patterson, and of undoubted purity.

Two half *Devon* bulls.

Two bulls half improved *Durham short horn*, and half *Devon*.

One splendid bull, a cross of the *Bakewell*, *Alderney* and *Devon*.

One bull, half *Alderney* and half *Holstein*.

These fine animals may be seen at Covington farm, near Petersburg, Frederick county, Md. on application to James L. Hawkins, Baltimore, or to

se 11 f FREDERICK FLETCHER Manger.

CHINESE MULBERRY TREES.

American Silk Agency, No. 95, Walnut st. Philadelphia

The subscriber having opened a permanent Agency for the purchase and sale of all articles connected with the culture and manufacture of Silk in the United States, offers for sale all the different varieties of *MULBERRY TREES*, suitable for raising the *SILK WORM*; viz: *Morus Multicaulis Alpinese*, *Broussa Multicaulis Seedlings*, *Morus Expansa*, *Multicaulis Cuttings*, *Improved Italian Trees*, &c. Also, *Cuttings from Norton's Virginia Seedlings*, and *Cunningham's Prince Edward GRAPE VINES*. These vines produce an abundant crop of fruit, warranted not to rot or mildew and are fine for the table, and capable of yielding the finest wines.

S. C. CLEVELAND, Agent.

AGRICULTURAL IMPLEMENTS.

John T. Durdin & Co. encouraged by the favors shown them in the past year, are determined to offer no article to their friends but such as they can warrant, made of the very best materials, finished in a superior manner, of the newest patterns, and at liberal prices.

From John T. D.'s long experience in the manufacture of these articles he flatters himself that he can give entire satisfaction to those farmers, Commission Merchants, Captains and others who may favor him with their orders.

J. T. D. & Co. wish especially to recommend a lately improved and superior "Wheat Fan" as being admirably adapted to clean effectually and fast—price \$25 They invite the attention of the public to their stock of Castings for ploughs or machinery, by the lb. or ton at the lowest prices. Also on sale, New York ploughs, No. 10 1-4 at \$3, No. 11 1-4 at \$3 25, No. 12 1-4 at \$3 75. Repairs in general done with neatness and despatch.—any new machine coming into market may be obtained to order.

All orders for field and garden seeds, of the best kinds and fresh, will also be furnished at our Agricultural Establishment, upon the usual terms, by Thomas Denny, seedsman, Grant St. Baltimore, rear of Messrs. Dinmore & Kyle. fe 26

CHILDS' PATENT SHAVING OR SHARPENING POWDERS.

As tranquility of mind is essential to the convalescence of the body, so will these powders prove from the usefulness and relief they afford to those who have to shave daily, and particularly dyspeptic invalids, whose enfeebled nerves are rendered more feeble by the least agitation.—Their use I strongly urge, and warrant their effect in producing feelings as agreeable and as soothing as an anodyne; and to those in health, instead of an irksome undertaking, the operation becomes a pleasurable pastime. I deem it my duty to recommend to the public this invaluable article, which may be had at the store of the inventor, No. 88 South Street, Bowly's Wharf.—James Gould, No. 136, Market Street:—or at Canfield & Brother's, South-East corner of Baltimore and Charles sts. X

Feb 19

41*

BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every Monday

| | PER | FROM | TO |
|-------------------------------------|---------|----------|--------|
| BEANS, white field,..... | bushel. | 2 50 | — |
| CATTLE, on the hoof,..... | 100lbs | 11 00 | 12 00 |
| CORN, yellow..... | bushel | 85 | 86 |
| White..... | " | 83 | — |
| COTTON, Virginia,..... | pound | 15 | 15 1/2 |
| North Carolina,..... | " | 13 1/2 | 14 1/2 |
| Upland,..... | " | 14 1/2 | 15 |
| Louisiana—Alabama..... | " | 15 | 16 |
| FEATHERS,..... | pound. | 53 | — |
| FLAXSEED,..... | bushel. | 1 56 | 1 62 |
| FLOUR & MEAL—Best wh. wh't fam. | barrel. | — | — |
| Do. do. baker's..... | " | — | — |
| SuperHow. st. from stores | " | 7 50 | 8 00 |
| " wagon price, | " | 7 37 | — |
| City Mills, super..... | " | — | 7 50 |
| " extra..... | " | — | — |
| Susquehanna,..... | " | — | — |
| Rye,..... | " | — | — |
| Kiln-dried Meal, in hhd. | hhd. | 18 50 | — |
| do. in bbls. | bbl. | 4 25 | — |
| GRASS SEEDS, wholes. red Clover, | bushel. | 13 00 | 14 00 |
| Kentucky blue..... | " | — | — |
| Timothy (herds of the north) | " | 2 75 | 3 00 |
| Orchard,..... | " | 2 00 | 2 50 |
| Tall meadow Oat,..... | " | — | 3 00 |
| Herds, or red top,..... | " | — | 1 00 |
| HAY, in bulk,..... | ton. | 12 00 | 16 00 |
| HEMP, country, dew rotted,..... | pound. | 6 | 7 |
| " water rotted,..... | " | 7 | — |
| HOGS, on the hoof,..... | 100lb. | 9 00 | 9 37 |
| Slaughtered,..... | " | 9 00 | 9 50 |
| HOPS—first sort,..... | pound. | 20 | — |
| second,..... | " | 18 | — |
| refuse,..... | " | — | — |
| LIME,..... | bushel. | 32 | 33 |
| MUSTARD SEED, Domestic, —; blk. | " | 3 50 | 4 00 |
| OATS,..... | " | 43 | 45 |
| PEAS, red eye,..... | bushel. | — | 2 50 |
| Black eye,..... | " | — | 2 50 |
| Lady,..... | " | — | 2 50 |
| PLASTER PARIS, in the stone, cargo, | ton. | 4 25 | — |
| Ground,..... | barrel. | 1 50 | — |
| PALMA CHRISTA BEAN,..... | bushel. | — | — |
| RAGE,..... | pound. | 3 | 4 |
| RYE,..... | bushel. | 95 | 1 00 |
| Susquehanna,..... | " | — | — |
| TOBACCO, crop, common,..... | 100lbs | 5 00 | 5 50 |
| " brown and red,..... | " | 6 00 | 6 50 |
| " fine red,..... | " | 9 00 | 12 00 |
| " wrappery, suitable | " | — | — |
| for segars,..... | " | 10 00 | 20 00 |
| " yellow and red,..... | " | 10 00 | 14 00 |
| " good yellow,..... | " | 10 00 | 15 00 |
| " fine yellow,..... | " | 12 00 | 15 00 |
| Seconds, as in quality,..... | " | 6 00 | 10 00 |
| ground leaf,..... | " | 7 00 | 13 00 |
| Virginia,..... | " | 6 00 | 10 00 |
| Rappahannock,..... | " | — | — |
| Kentucky,..... | " | 6 00 | 8 00 |
| WHEAT, white,..... | bushel. | — | — |
| Red, best..... | " | 1 70 | — |
| Maryland..... | " | — | — |
| WHISKEY, 1st pf. in bbls. | gallon. | 44 | 45 |
| " in hhd. | " | 41 | — |
| " wagon price,..... | " | — | 41 |
| WAGON FREIGHTS, to Pittsburgh, | 100lbs | 3 00 | — |
| To Wheeling,..... | " | 3 00 | — |
| Wool, Prime & Saxon Fleeces,... | pound. | 50 to 55 | — |
| Full Merino,..... | " | 45 50 | — |
| Three fourths Merino,..... | " | 40 45 | — |
| One half do..... | " | 35 40 | — |
| Common & one fourth Meri. | " | 35 40 | — |
| Pulled,..... | " | 30 33 | — |
| POTATOES, 60 to 70 cts. a bushel. | " | — | — |

BALTIMORE PROVISION MARKET.

| | PER. | FROM. | TO. |
|--------------------------------------|---------|--------|----------|
| APPLES,..... | barrel. | 13 | 15 |
| BACON, ham new, Balt. cured.... | pound. | 11 1/2 | 12 |
| Shoulders,..... do..... | " | 12 1/2 | — |
| hiddings,..... do..... | " | 10 1/2 | — |
| Assorted, country,..... | " | 31 | 50 |
| BUTTER, printed, in lbs. & half lbs. | " | 25 | 31 1/2 |
| Roll,..... | " | 1 75 | 2 00 |
| CIDER,..... | barrel. | 5 00 | 6 00 |
| CALVES, three to six weeks old.... | each. | 30 00 | 40 00 |
| COWS, new milch,..... | " | — | — |
| Dry,..... | " | — | — |
| CORN MEAL, for family use,..... | 100lbs. | 2 00 | 2 12 |
| CHOP RYE,..... | " | — | 1 60 |
| EGGS,..... | dozen. | 25 | — |
| FISH, Shad, No. 1, Susquehanna, | barrel. | 6 00 | 6 25 |
| No. 2,..... | " | 6 00 | 6 25 |
| Herrings, salted, No. 1,..... | " | 11 75 | 13 50 |
| Mackerel, No. 1, ————No. 2 | " | 7 50 | — |
| No. 3,..... | " | 3 25 | 3 37 1/2 |
| Cod, salted,..... | cwt. | 12 | 13 |
| LARD,..... | pound. | — | — |

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

| | U. S. Bank,..... | par | VIRGINIA. |
|--------------------------------|------------------|-----|-------------------------------|
| Branch at Baltimore,..... | do | do | Farmers Bank of Virgi. par |
| Other Branches,..... | do | do | Bank of Virginia,..... do |
| MARYLAND. | | | Branch at Fredericksburg, do |
| Banks in Baltimore,..... | par | do | Petersburg,..... do |
| Hagerstown,..... | o | do | Norfolk,..... do |
| Frederick,..... | do | do | Winchester,..... do |
| Westminster,..... | do | do | Lynchburg,..... do |
| Farmers' Bank of Mary'd, do | do | do | Danville,..... do |
| Do. payable at Easton,..... | do | do | Bank of Valley, Winch. par |
| Salisbury,..... 1 per ct. dis. | do | do | Branch at Romney,.... par |
| Cumberland,..... par | do | do | Do. Charlestown, par |
| Millington,..... do | do | do | Do. Leesburg,.... par |
| DISTRICT. | | | Wheeling Banks,.... 2 1/2 |
| Washington,..... | do | do | Ohio Banks, generally 3 |
| Georgetown,..... | do | do | New Jersey Banks gen. 3 |
| Alexandria,..... | do | do | New York City,..... par |
| PENNSYLVANIA. | | | New York State,..... do a 1/2 |
| Philadelphia,..... par | do | do | Massachusetts,..... 1 1/2 a 2 |
| Chambersburg,..... 1/2 | do | do | Connecticut,..... 1 1/2 a 2 |
| Gettysburg,..... do | do | do | New Hampshire,.... 1 1/2 a 2 |
| Pittsburg,..... 2 1/2 | do | do | Maine,..... 1 1/2 a 2 |
| York,..... 2 | do | do | Rhode Island,..... 1 1/2 a 2 |
| Other Pennsylvania Bks. 2 | do | do | North Carolina,.... 3 a 3 1/2 |
| Delaware (under \$5).... 4 | do | do | South Carolina,.... 4 a 5 |
| Do. (over \$5)..... 1 1/2 | do | do | Georgia,..... 5 a 5 1/2 |
| Michigan Banks,..... 10 | do | do | New Orleans,..... 7 a 8 |
| Canadian do..... 10 | do | do | |

FRESH SUPPLY OF FIELD AND GARDEN SEEDS.

BY THOMAS DENNY, Ellicott near Pratt street, Baltimore, who has just received general supply of GARDEN SEEDS, the growth of 1893, part of which was raised by the first Seedsmen of this country, and a part imported, all of which will be sold wholesale and retail, upon the best terms, such as

GARDEN PEAS; Early and Late assorted Cabbage; Cauliflowers; Radish; Lettuce; Cucumber; Parsnip; Carrot; Onion; Rutabaga Turnip; Parsnip seed of all kinds, Garden Beets assorted; French Sugar Beet; Mangel Wurtzell, &c. &c. Also Field SEEDS, such as Early Sugar, Early White, Sioux, Chin or Tree Corn; Dutton, Baden and Twin Corn; Red Clover; Luzerne and White Dutch Clover; Timothy; Orchard; Herds; Millet, Tall Meadow Oats; superior Seed Oats; Spring Wheat; Spring Rye; Spring Barley; Seed Buckwheat; blue and Kentucky Lawn Grass, &c. &c.

Also GARDEN TOOLS, assorted sizes, and late improved patterns; Bird Seed of all kinds, Double Dahlias; Hyacinths, and Polyanthus, assorted, and selected for beauty and richness of colours, together with choice Flower Seed, assorted; Mulberry Trees; Fruit and Ornamental Trees; Silk worm Eggs; &c.; Agricultural Books; Silk Manuals; &c. Roban Potatoes—Early Seedling do. &c. All orders by mail or otherwise will meet with early attention and dispatch, on the best terms for cash.

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AGRICULTURAL IMPLEMENTS.

THE Subscriber acknowledges with gratitude the liberal patronage he has received from the public since the establishment of his Repository in 1825.—During this long period he has studied successfully his own interest by identifying them with the interest of his customers in being prompt and faithful in the execution of their orders.

His present facilities of manufacturing agricultural implements, are not surpassed by any other establishment in this country, he can therefore afford them on as reasonable terms as any other person for the same quality of work. His present stock of implements are extensive both in quality and variety, to which he would invite the attention of those who wish to purchase.

A liberal discount will be made to all cash purchasers, and to those who purchase to sell again.

The following names are some of his leading articles viz His PATENT CYLINDRICAL STRAW CUTTERS, weed and iron frames, but all with his patent double eccentric feeders, with or without extra knives, prices varying from \$33 to \$110, subject to cash discount, he challenges the world to produce a better machine for cutting long forage, Myer's WHEAT FAN and ELIOTT'S PATENT HORIZONTAL WHEAT FANS, both a very superior article. Fox & Borland's PATENT THRESHING MACHINES and Martineau's

PATENT HORSE POWERS, also superior articles.—A great variety of PLOUGHS, wrought and cast Steel, of all sizes and prices; Gideon Davis's improved PLOUGHS, of Davis's own make of Patterns, which are sufficiently known to the public not to require commendation; 100 CORN CULTIVATORS, also expanding CULTIVATORS, both iron and wood frames, and new plan; TOBACCO CULTIVATORS.

F. H. Smith's PATENT LINE SPREADERS, the utility of which has been made known to the public; together with a general assortment of FARMING IMPLEMENTS; PLOUGH CASTINGS of every description and superior quality kept constantly on hand at retail or by the ton; also, MACHINE and other CASTINGS furnished at short notice and on reasonable terms, his iron Foundry being furnished with the best materials and experienced workmen with ample machinery running by steam power for turning and fitting up machinery.

ALSO—Constantly on hand D. Landreth's superior GARDEN SEEDS;—In store POTATOES and common SEED OATS, TIMOTHY and HERDS SEEDS all of superior quality.—All orders will be promptly attended to.

JONATHAN S. EASTMAN,

Farmers' Repository, Pratt street,
Near the Baltimore & Ohio Rail Road Depot.

A SETTER FOR SALE.

The subscriber has for sale a thorough bred Setter, eleven months old. He has been but little hunted but gives indication of making a first rate dog. He comes of a strain remarkable for their fine performance in the field, and is a beautiful rich brown white in the breast and face. His price is \$30. All applications by letter must be post paid. to 26 EDWARD. P. ROBERTS.

SEEDS, PLANTS, FLOWERS.



The subscriber offers for sale at his establishment a fresh supply of GARDEN SEEDS of the very best quality; those that cannot be grown in this country he imports direct from Europe from a source that can be relied on.

Besides a large collection of GREENHOUSE, hardy ORNAMENTAL TREES and Shrubs, Herbaceous Plants, and Bulbous Roots, and a choice collection of the very finest double Dahlias offered for sale, all on reasonable terms, wholesale or retail.

Also on hand a few bushels of ITALIAN SPRING RYE GRASS, with 100 bush. ITALIAN SPRING WHEAT, of the true kind. All orders for Fruit and Ornamental Trees, or any thing appertaining to his establishment will be strictly attended to, by

JOHN FEAST,
Florist & Seedsman, cor. of Lexington and Pratt
ja 22 tf Baltimore.

Printing, executed at the Farmer & Gardener office, at short notice.

THE AMERICAN FARMER.

The proprietors of this paper have a few complete sets of this work on hand, which they will dispose of at the reduced price of \$50 a set.

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